Educom

TRANSFORMING EDUCATION THROUGH INFORMATION TECHNOLOGY

April 3, 1996

Federal Communications Commission
1919 M Street
Washington, DC 20554

Reference: Rulemaking 8775 - ACTA Petition on Internet Voice

Honorable Members of the Commission:

These informal comments are submitted on behalf of the six hundred colleges and universities whose information technology interests are represented by Educom, a non-profit educational association.

Institutions of higher education have been deeply involved with computer networking technology since its inception some twenty-five years ago. Our participation has included fundamental research, applied development, and pre-commercial deployment of products and services. In the course of these activities, campuses have partnered with federal research agencies and with private industry on many occasions to achieve common networking objectives.

Today, higher education is a major user of the worldwide facilities of the Internet, which have become an essential component of our teaching, research and public service missions. In the United States, fifteen million students and several million faculty and staff at more than three thousand accredited institutions are served by 1.9 million Internet host computers, a number which has doubled in the last year and is still growing rapidly.

The Internet is not only important today, but its successful continuing growth is an integral part of the strategic planning efforts within higher education to enable greater access by students throughout the nation, to reach out to the primary and secondary school community, and to forge new ties with employers of our graduates.

We strongly urge the Commission to deny the ACTA petition for the reasons set forth below.

1. The Internet is inherently a multimedia form of communication and this characteristic has great potential economic, educational and social benefits which should be encouraged by the Commission.

The basic digital, packet-switched transmission services embodied in the Internet are independent of content. Although originally employed primarily as a means for computer to computer exchange of text encoded in ASCII format, they have already evolved to support voice, conventional television, video imaging, formatted text, the World Wide Web and other forms of communication and control. Although many of these services are still in an experimental stage, they work remarkably well considering the frequent bandwidth constraints on Internet services. As the Internet scales upward in capacity and functionality, the ability to send and receive information in a variety of formats and media will become an indispensable feature of the network.

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The availability of fully digital, multimedia Internet services has enormous future value to the realization of many teaching and learning goals, especially in connection with distance education. Many of the well known shortcomings of "talking head" forms of projecting classrooms to off campus sites based on switched or off the air analog television will be ameliorated by a fully interactive, multimedia, wireline and wireless Internet. In addition to its "anyone, anywhere" capability, the future multimedia Internet will facilitate the transition of instruction from "teacher-centered" to "learner-centered" forms of instruction.

Additionally, the flexible provision of multimedia capability will allow the development of new learning tools and systems that support the needs of individuals with learning impairments such as blindness, deafness, limited muscular control, dyslexia, etc.

Under sections 254 - Universal Service (47 USC 254) and 706 - Advanced Telecommunications (47 USC 157) of the 1996 Act, the Commission is directed to promote the development and deployment of "high speed, switched, broadband telecommunications capability that enables users to originate and receive high quality voice, data, graphics, and video telecommunications using any technology." [110 STAT 153]

We believe that Congress intended that the open, creative environment of the Internet, which has lead to many communications innovations and holds the promise of many more, should be sustained by the Commission. The imposition of regulatory constraints at this time, as petitioned by ACTA, would have a severe negative impact on the pace of development within the academic Internet community, and within the rapidly growing Internet products and services industry, an impact which would far exceed any potential benefit to petitioners.

2. Additional regulation of the Internet under the Communications Act, as amended by the 1996 legislation (PL 104-104), is neither necessary nor desirable.

More than a decade ago, the Commission determined that enhanced data services should be allowed to develop without FCC regulation. This farsighted decision was a major factor in the subsequent development of the data communications industry and of what is now the Internet industry. The United States leads the world in networking technology, an economic success story that is due in no small part to the lack of barriers to entry in this marketplace.

The Commission should act decisively in this case to reaffirm its commitment to an unregulated market for enhanced services such as those represented by the Internet.

The ACTA petition asserts that the lack of a specific charge for voice services on the Internet is equivalent to giving away the service and thus deprives operators of telecommunications infrastructure of the revenue necessary to maintain it properly. This is factually incorrect. Pricing of Internet services, which is highly competitive, is based on provider estimates of bandwidth utilization by their customers. While it is true that bandwidth use is growing both in terms of numbers of customers as well as in packets per hour per user, these are traffic statistics that are well known to the several thousand providers of Internet services. To the extent that bandwidth use (and cost) exceeds customer revenue, then provider pricing will be adjusted upward. At the present time, it appears that marginal revenue substantially exceeds marginal cost of service. And since wholesale prices of bandwidth are projected to continue to decline substantially as a result of deployment of improved fiber optic transmission technology and high speed broadband cell and packet switches, no general increase in prices may be necessary to accommodate multimedia uses of the Internet

The ACTA petition further asserts that computer software manufacturers are within the Commission's jurisdiction, presumably because their product operates within a device, such as a personal computer, that is in turn connected - at least periodically - to the public switched telecommunications network (PSTN). Even if such a novel legal construction were found by

the Commission and the courts to be correct, it is manifestly not in the public interest for the Commission to pursue this course of action for several reasons.

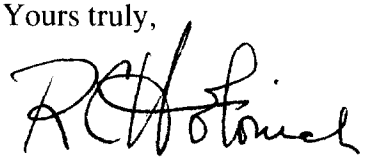
First, it would plunge the Commission into rulemakings of extraordinary complexity as it attempted to determine under what circumstances a given arrangement of computer hardware and software was in fact operating as a regulated telecommunications device. In this connection, it is notable that the Commission has already determined that customer premises equipment (CPE) connected to the network should be deregulated.

Second, such a proceeding would delay the evolution of the PSTN into an integrated, broadband digital network supporting a variety of services in a competitive market environment, and potentially damage the competitive position of the U.S. networking and communications industry.

Third, the ACTA petition, stripped down to its essentials, is an attempt by a coalition of resellers of conventional circuit switched interexchange voice services to obtain favored treatment from the Commission. There is no longer a need to preserve a one-size-fits-all approach to voice services. Many users may find that a limited quality Internet voice service meets their needs, while others will require the reserved bandwidth of a circuit switched connection. These differentiated services should be allowed to flourish. The public interest will be served best by permitting multiple providers to compete using a variety of technologies. A Commission finding that supports this position is specifically sanctioned by section 706 (a) of the 1996 Act, wherein the Congress stated: " The Commission ...shall encourage the deployment...of advanced telecommunications capability to all Americans...by utilizing...regulatory forbearance...or other regulatory methods that remove barriers to infrastructure investment."

We thank the Commission for the opportunity to contribute these comments to its decision making process in this rulemaking. We would be pleased to provide additional information on the importance to higher education of denying the ACTA petition at your convenience.

Yours truly,



Robert C. Heterick, Jr.
President